

82964

PATENT APPLICATION

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:	)	Conf. No.: 6038
Anthony J. Dezonno	)	
	)	
Serial No.: 10/090,499	)	Filed: March 4, 2002
	)	
For: INTELLIGENT INTERACTIVE	)	Art Unit: 2645
VOICE RESPONSE UNIT	)	
	)	
Examiner: Genack, M.	)	

**AMENDMENT**

Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA 22313-0001

In response to the Office Action mailed February 10, 2006, please amend the claims in the above-identified application as follows:

In the claims:

1. (Currently Amended) A method of processing calls in a call processing center of an organization that processes calls in support of enterprise activities of the organization, such method comprising the steps of:

the call center receiving a first call and assigning the first call to a live agent;  
receiving a query about the enterprise activities of the organization from a caller during a second call through the call center of the organization;  
translating the query into voice extensible mark-up language;  
forming an answer to the translated query within an artificial intelligence engine of the call center wherein the artificial intelligence engine knowledge universe comprises ~~is substantially limited to~~ the enterprise activities of the organization; and  
the call center providing the determined answer to the caller.

2. (Currently Amended) The method of processing calls in the call processing center as in claim 1 wherein the artificial intelligence engine utilizes a caller call record including identity and contact history to form a context for ~~processing the call~~ forming the answer to the query.

3. (Previously Presented) The method of processing calls in the call processing center as in claim 1 wherein the step of forming an answer further comprises forming the answer in the form of VXML code within the AI engine.

4. (Previously Presented) The method of processing calls in the call processing center as in claim 3 wherein the step of providing the determined answer to the caller further comprises converting the provided answer into audible speech.

5. (Currently Amended) The method of processing calls in the call processing center as in claim 4 wherein the artificial intelligence engine utilizes the expertise and inputs ~~normally~~ associated with a live agent.

6. (Currently Amended) The method of processing calls in the call processing center as in claim 1 wherein the step of receiving the query further comprises detecting the query within at least one of an html document and an email.
7. (Currently Amended) The method of processing calls in the call processing center as in claim 1 wherein ~~the step of receiving the query further comprises detecting the query within an e-mail~~ artificial intelligence engine knowledge universe is limited to the enterprise activities of the organization.
8. (Currently Amended) An apparatus for processing calls in a call processing center of an organization that processes calls in support of enterprise activities of the organization, such apparatus comprising:
- means within the call center for receiving a first call and assigning the first call to a live agent;
  - means for receiving a query about the enterprise activities of the organization from a caller during a second call through the call center of the organization;
  - means for translating the query into voice extensible mark-up language;
  - means for forming an answer to the translated query within an artificial intelligence engine of the call center wherein the artificial intelligence engine uses a knowledge universe which is ~~substantially~~ limited to the enterprise activities of the organization; and
  - means within the call center for providing the determined answer to the caller.
9. (Currently Amended) The apparatus for processing calls in the call processing center as in claim 8 wherein the artificial intelligence engine utilizes a callers call record including identity and contact history to form a ~~contact for processing the call~~ context for forming the answer to the query.
10. (Previously Presented) The apparatus for processing calls in the call processing center as in claim 8 wherein the means for forming an answer further comprises means for forming the answer in the form of VXML code within the AI engine.

11. (Previously Presented) The apparatus for processing calls in the call processing center as in claim 10 wherein the means for providing the determined answer to the caller further comprises means for converting the provided answer into audible speech.

12. (Currently Amended) The apparatus for processing calls in the call processing center as in claim 11 wherein the artificial intelligence engine utilizes the expertise and inputs ~~normally~~ associated with a live agent.

13. (Currently Amended) The apparatus for processing calls in the call processing center as in claim 8 wherein the means for receiving the query further comprises means for detecting the query within at least one of an html document and an email.

14. (Currently Amended) The apparatus for processing calls in the call processing center as in ~~claim 8~~claim 15 wherein the ~~means for receiving the query further comprises means for detecting the query within an e-mail~~artificial intelligence engine implements a subset of second order logic.

15. (Currently Amended) An apparatus for processing calls in a call processing center of an organization that processes calls in support of enterprise activities of the organization, such apparatus comprising:

an agent station of the call center that receives a first call and where the first call is handled by a live agent;

a voice extensible mark-up language interpreter of the call center adapted to translate a query about the enterprise activities of the organization from a caller during a second call into voice extensible mark-up language;

an artificial intelligence engine of the call center adapted to form an answer to the translated query within ~~an~~the artificial intelligence engine wherein the artificial intelligence engine uses a knowledge universe which ~~is substantially limited to~~comprises the enterprise activities of the organization; and

a speech synthesizer of the call center adapted to provide the determined answer to the caller.

16. (Previously Presented) The apparatus for processing calls in the call processing center as in claim 15 wherein the artificial intelligence engine utilizes a caller call record including identity and contact history to form a context for processing the call.
17. (Previously Presented) The apparatus for processing calls in the call processing center as in claim 14 wherein the artificial intelligence engine forms the answer in VXML code.
18. (Original) The apparatus for processing calls in the call processing center as in claim 15 further comprising a speech recognition application adapted to recognize spoken words of the caller.
19. (Original) The apparatus for processing calls in the call processing center as in claim 15 wherein the means for receiving the query further comprises a web site adapted to detect the query within an e-mail.
20. (Currently Amended) A method of processing calls in a call processing center of an organization, such method comprising the steps of:  
an agent terminal adapted to allow a first call to be handled by a live agent;  
the call center of the organization receiving a text-based question from a caller during a second call;  
converting the text-based question into a metaprogramming language understood by an artificial intelligence engine of the call center;  
determining an answer to the text-based question within the artificial intelligence engine based upon a knowledge universe made up of enterprise activities of the organization wherein the artificial intelligence engine encodes the answer in VXML code;  
the call center providing the determined answer to the caller in the form of audible speech.
21. (Cancelled)

## **REMARKS**

Reconsideration and further examination of the subject patent application in view of the present Amendment, and the following Remarks is respectfully requested. Claims 1-20 are currently pending in the application. Claims 1, 5, 8, 12 and 15 have been rejected under 35 U.S.C. §112, second paragraph as being indefinite. Claims 1, 6-8, 13-15 and 19 have been rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Pat. Application Publication No. 2002/0035474 to Alpdemir, claims 2, 9 and 16 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Alpdemir in view of Gavan et al. (U.S. Pat. No. 6,601,048), and claims 3-4, 10-11, 17 and 20 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Alpdemir in view of Saylor et al. (U.S. Pat. No. 6,792,086). Independent claims 1, 8, 15 and 20 have been amended, dependent claims 2, 4-7, 9, and 12-14 have been amended. After careful review of the claims and references, applicant believes that the claims are in allowable form and therefore a Notice of Allowance is respectfully requested.

Claims 1, 8 and 15 have been rejected as indefinite because of the phrase “substantially limited to...” This has been corrected by amendments to claim 1, 8 and 15. Claim 5 and 12 have been rejected as indefinite for use of the phrase “normally associated...” This has been corrected by removing the term “normally” from claims 5 and 12.

The independent claims 1, 8, and 15 as well as dependent claims 6, 7, 13, 14 and 19 have been rejected as anticipated by Alpdemir. The Examiner has indicated that Alpdemir discloses use of a artificial engine to process and answer queries. However, Alpdemir does not disclose the use of an artificial intelligence engine for forming answers to queries from callers as claimed. The citation to Alpdemir pointed out by the Examiner (Office Action p. 2, para 2, line 11) does not provide a disclosure of the claimed use of an artificial intelligence engine to answer the call center queries at all. Instead, it merely mentions that artificial intelligence is generally known and states that there will be no description of artificial intelligence. (See Alpdemir para [0141], line 8-9”... and artificial intelligence are known in the art and not described in greater detail

here”). This brief comment does not give a description of the use of artificial intelligence at all and in no way discloses use to answer queries about the activities of the organization as claimed. In addition, the claims 1, 15 and 20 also call for an activities intelligence engine with a knowledge universe comprising enterprise activities of the organization, while claims 7 and 8 limit the knowledge universe to enterprise activities. As described, in the specification (e.g., p. 8, para 4) this provides unique advantages, and is not disclosed in Alpdemir which does not describe any implementation of an artificial intelligence engine. Thus, the independent claims 1, 8, 15, and 20 distinguish over Alpdemir for at least the above two reasons, and are therefore believed to be allowable.

Claims 2, 9, and 16 have been rejected as obvious over Alpdemir in view of Gavan et al. (“Gavan”). As discussed above, Alpdemir does not teach use of an artificial intelligence engine to form answers to caller queries, and neither does Gavan. Gavan discloses a system for processing event records and uses an AI engine for pattern recognition in the records for detecting fraud. Thus, while Gavan teaches detection of patterns in event records, it does not teach use of artificial intelligence to answer queries from callers about the enterprise activities as claimed. Thus, neither reference discloses this feature. In addition, claims 2, 9 and 16 call for use of call records to form a context for forming answers to the caller queries. Gavan, concerned with the entirely different issue of looking for fraud patterns in event records, fails to teach or suggest this feature. Thus, neither Alpdemir nor Gavan disclose the claimed feature of using the call records to form the context for forming answers to the caller queries. Accordingly, claims 2, 9 and 16 are believed to be distinguishable over the combination of Alpdemir and Gavan.

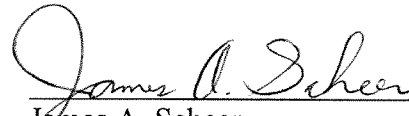
Claims 3-4, 10-11, 17 and 20 was rejected as obvious over Alpdemir in view of Saylor et al. (“Saylor”). Saylor also fails to disclose use of an artificial intelligence engine to form answers to caller queries. Thus, none of the cited references teach this feature, and the claims 3-4, 10-11, 17 and 20 are therefore distinguishable over the combination.

As discussed above, all pending claims 1-20 claim features which are not disclosed in any of the cited references. Therefore, claims 1-20 are believed to be allowable over any combination of the cited references.

For the foregoing reasons, applicant submits that the subject application is in condition for allowance and earnestly solicits a Notice of Allowance. Should the

Examiner be of the opinion that a telephone conference would expedite prosecution of the subject application, the Examiner is respectfully requested to call the undersigned at the below-listed number.

Respectfully submitted,

  
James A. Scheer  
Reg. No. 29, 434

July 27, 2006  
WELSH & KATZ, LTD  
120 South Riverside Plaza, 22<sup>nd</sup> Floor  
Chicago, Illinois 60606  
(312) 655-1500 Telephone  
(312) 655-1501 Facsimile